

November 17, 2000

CCN 15139

Ms. Kathleen E. Hain, Manager  
Environmental Restoration Program  
U.S. Department of Energy  
Idaho Operations Office  
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Idaho Falls, ID 83401-1563

CONTRACT NO. DE-AC07-99ID13727- NO LONGER CONTAINED-IN REQUEST FOR THE NEW PUMP AND TREAT FACILITY

- References:
- (a) INEEL, 1998, Functional and Operational Requirements for the New Pump and Treat Facility at the Test Area North Operable Unit 1-07B, INEEL/EXT-97-01335, September, Revision 1
  - (b) INEL, 1995, Record of Decision, Declaration for the Technical Support Facility Injection Well (TSF-05) and Surrounding Groundwater Contamination (TSF-23) and Miscellaneous No Action Sites Final Remedial Action, Operable Unit 1-07B, Waste Area Group 1, Idaho National Engineering Laboratory, U.S. Department of Energy, Idaho Operations Office, August

Dear Ms. Hain:

A No Longer Contained-In (NLCI) request for water treated through the New Pump and Treat Facility (NPTF) has been submitted to the State of Idaho. The NLCI criterion per the State's request is that the concentration of volatile organic compounds (VOCs) in re-injected water must have a cumulative health risk of  $\leq 1E-5$ . This criterion conflicts with the NPTF Functional and Operational Requirements (F&OR) and represents a change from previous Agency agreements. The applicable NPTF F&OR was to reduce the concentration of the VOCs identified in the 1995 Record of Decision (ROD) (INEL, 1995) to below Maximum Contaminant Levels (MCLs). The applicable sections of the F&ORs document (INEEL, 1998) that describes the design basis concerning re-injection of water treated in the NPTF are as follows:

## Section 2.2 Water Treatment System

"...The water treatment system will provide the necessary facilities and equipment needed to reduce the VOC contaminants from the groundwater to below maximum contaminant levels (MCLs) as listed in the OU 1-07B ROD..."

"The water treatment system will reduce (by destruction or air stripping) the TCE and other VOC concentrations to below the OU 1-07B ROD defined MCLs using the most cost effective treatment technology..."

### Section 3.6.1.1 VOCs

"Based on the sampling results obtained during the WCE activities the design influent concentrations for VOCs are as shown in Table 3-1."

**Table 3-1. Design Influent Concentration.**

Contaminant	Design Influent Concentration (µg/L)
TCE	1,100
PCE	70
Cis-DCE	120
Trans-DCE	50

### Section 3.6.4 Water Effluent

"All injected water will be treated to below the MCLs established in the OU 1-07B ROD. Based on TCE, the NPTF must maintain a minimum removal efficiency of 99.6%. The treated water will be re-injected back into the TAN subsurface using reinjection wells located downgradient of the extraction well location."

The direction requested by the State with respect to the NLCI criterion is clearly different from the F&ORs that were developed with the State's concurrence and the intent of the ROD. The recommended path forward is to continue with NPTF startup activities per the baseline schedule. During startup testing, samples of the NPTF effluent will be analyzed for the target VOC analytes and the associated cumulative risk will be calculated. Although it is viewed as unlikely, should the risk calculation show that the treated water does not meet the cumulative risk NLCI requirement, modifications to the NPTF will be required. These potential modifications are not currently within the Operable Unit (OU) 1-07B scope, schedule, and budget and consequently the potential changes would adversely affect other OU 1-07B project activities. The magnitude of these impacts would have to be defined in the event that the treated water did not meet the NLCI requirement since there is no scope, schedule, or budget planned to address such an issue. The detailed work plan would have to be evaluated to determine what baseline changes would be required and when they could be implemented.

If you have any questions concerning the impact of the change from MCLs to cumulative risk calculations, please contact Mr. Douglass Kuhns at 526-8226 or Mr. Joseph Rothermel at 526-5776.

Sincerely,



F. Lee Smith, Director  
Environmental Restoration

LON:mr

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